

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 1-8 and 10-19 are presently active in this case, Claims 1-8 having been amended, Claim 9 having been canceled, and Claims 10-19 having been added by way of the present amendment.

The changes to Claims 1-8, and new Claims 10-19, are fully supported by the specification, including the claims, as originally filed and are not believed to raise an issue of new matter. Support for new Claims 10-19 is found in Figures 1 and 2, and in the specification, pages 4-7, for example.

In the outstanding Office Action, Claims 1-9 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite; Claims 1-9 were rejected under 35 U.S.C. §102(e) as being anticipated by Hashimoto et al, (U.S. Patent No. 5,819,473); Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hashimoto et al in view of Finch et al (U.S. Patent No. 3,989,275); the drawings were objected to because of improper cross-sectional shading for shaped piece 8; the Abstract of the Disclosure was objected to because of legal phraseology; the title of the invention was objected to as being non-descriptive; and it was noted that the specification was not in the preferred layout.

In response to the rejection of Claims 1-9 under 35 U.S.C. §112, second paragraph, Claim 9 has been canceled and Claims 1-8 rewritten in United States claim drafting format. Applicant respectfully submits that amended Claims 1-8, and new Claims 10-19, are definite and comply with 35 U.S.C. §112, second paragraph.

Recapitulating briefly, the present invention is directed to a vehicle door structure.¹ As recited in amended independent Claim 1, features of the present invention include at least

¹Specification, page 1, lines 3-15, for example.

one double-shell box structure, resistant to warping, with two continuous walls which are spaced apart and parallel to the outer wall of the door structure, and in that the outer surface of the box structure facing towards the outer door wall is parallel and close to a line along which the window, which can be dropped down into the space between the outer wall of the door and the said surface of the box structure moves, and in that the inner surface of the box structure facing towards the inside of the vehicle is equipped with attachment means for mounting the equipment destined for the inside of the vehicle. An advantage of the present invention is that production costs are lowered.²

Attention is now directed to the patentability of amended independent Claim 1 over the Hashimoto et al and Finch et al references. Hashimoto et al discloses, in Figure 1 and in Figure 4, a vehicle door D including an outer panel 10, a door module 100 including an inner panel 110 and door equipment integrally formed with the inner panel, and an inner trim 20 for covering an interior side of the inner panel 110.³ *The door equipment is attached to a surface of the inner panel 110 confronting the outer panel 10.* The inner panel 110 has the upper portion provided with a reinforced portion 111.⁴ Although Hashimoto et al discloses a bent structure provided to the upper portion of the inner panel 110 to form the reinforced portion 111, as shown in Figure 2, Hashimoto et al does not disclose or suggest a rigid *double-shell box structure*, the box structure including at least *two continuous walls spaced apart and parallel to the outer wall* of the door structure, as recited in independent Claim 1, and Applicant respectfully submits that independent Claim 1, and dependent Claims 2-8, are patentably distinguishable over the asserted reference.

²Specification, page 2, lines 8-14, for example.

³Hashimoto et al at column 3, lines 47-55.

⁴Hashimoto et al at column 4, lines 55-65.

Finch et al only discloses an energy absorbing rigid polyurethane foam.⁵ Therefore, Finch et al does not disclose or suggest a rigid *double-shell box structure*, the box structure including at least *two continuous walls spaced apart and parallel to the outer wall* of the door structure, as recited in independent Claim 1, and Applicant respectfully submits that independent Claim 1, and dependent Claims 2-8, are patentably distinguishable over Finch et al, whether taken alone or in combination with Hashimoto et al.

Attention is now directed to the patentability of independent Claim 10 over the Hashimoto et al and Finch et al references. Features of independent Claim 10 include a rigid double-shell box structure, the box structure including at least two continuous walls spaced apart and parallel to an outer wall of said vehicle door and configured to form at least one hollow section, configured to fit within the vehicle door and to be fixedly attached to the vehicle door, and configured to provide independent structural support for vehicle door components attached to the box structure, as recited in independent Claim 10.

Hashimoto et al discloses, in Figure 1 and in Figure 4, a vehicle door D including an outer panel 10, a door module 100 including an inner panel 110 and door equipment integrally formed with the inner panel, and an inner trim 20 for covering an interior side of the inner panel 110.⁶ *The door equipment is attached to a surface of the inner panel 110 confronting the outer panel 10.* The inner panel 110 has the upper portion provided with a reinforced portion 111.⁷ Although Hashimoto et al discloses a bent structure provided to the upper portion of the inner panel 110 to form the reinforced portion 111, as shown in Figure 2, Hashimoto et al does not disclose or suggest a rigid *double-shell box structure*, the box

⁵Finch et al at column 2, lines 13-34, and Figures 1-3.

⁶Hashimoto et al at column 3, lines 47-55.

⁷Hashimoto et al at column 4, lines 55-65.

structure including at least *two continuous walls spaced apart and parallel to an outer wall* of said vehicle door and configured to provide independent structural support for vehicle door components attached to the box structure, as recited in independent Claim 10, and Applicant respectfully submits that independent Claim 10, and dependent Claims 11-14, are patentably distinguishable over the asserted reference.

Finch et al only discloses an energy absorbing rigid polyurethane foam.⁸ Therefore, Finch et al does not disclose or suggest a rigid *double-shell box structure*, the box structure including at least *two continuous walls spaced apart and parallel to an outer wall* of said vehicle door and configured to provide independent structural support for vehicle door components attached to the box structure, as recited in independent Claim 10, and Applicant respectfully submits that independent Claim 10, and dependent Claims 11-14, are patentably distinguishable over Finch et al, whether taken alone or in combination with Hashimoto et al.

Features of independent Claim 15 include a rigid *double-shell box structure*, the box structure including at least *two continuous walls spaced apart and parallel to an outer wall* of said vehicle door and configured to provide independent structural support for vehicle door components attached to the box structure, and Applicant respectfully submits that independent Claim 15, and dependent Claims 16-19, are patentably distinguishable over Hashimoto et al and Finch et al, whether taken alone or in combination, for at least the same reasons given above for independent Claim 10.

In response to the objection to the drawings, Applicant respectfully submits that Fig. 2 complies with 37 CFR §1.83(a) because the element 8 cross-hatching is compatible with the first listed material “sheet metal” in the specification, page 6, line 12.

⁸Finch et al at column 2, lines 13-34, and Figures 1-3.

In response to the objection to the Abstract of the Disclosure, the Abstract of the Disclosure has been amended to correct the noted informalities. The changes are fully supported by the specification, including the claims, as originally filed, and are not believed to raise an issue of new matter.

In response to the objection to the title, the title of the invention has been amended to be more descriptive.

In response to the noted informalities in the specification, the specification has been amended to include suggested section headings.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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Serial No:
09/486,706
Amendment Filed on:
6-28-01

IN THE TITLE

In the title page, please amend the existing title to read as follows:

--VEHICLE DOOR WITH IMPROVED EQUIPMENT STRUCTURAL SUPPORT--

IN THE SPECIFICATION

Please amend the specification as shown in the marked-up copy following this amendment.

Page 1, before line 1, insert:

--TITLE OF THE INVENTION--

between lines 15 and 16, insert:

--DISCUSSION OF THE BACKGROUND--.

Page 2, between line 17 and 18, insert:

--SUMMARY OF THE INVENTION--.

Page 4, between lines 11 and 12, insert:

--BRIEF DESCRIPTION OF THE DRAWINGS--

between lines 19 and 20, insert:

--DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS--

IN THE CLAIMS

Please amend the claims as follows:

--1. (Amended) A [Vehicle] vehicle door comprising:

[-] a door structure consisting of an outer wall [(3)] and of a lower wall [(4)] and lateral walls [(5, 6)] and which is open towards [the] an inside of the vehicle,
[-] an equipment support which can be fixed to the door structure, comprising already mounted equipment [such as the window glass, the window lifter mechanism, the window lifter motor and the like, and which essentially supports equipment which is decisive in terms of weight and/or which exerts and/or transmits forces],

[-] an interior trim lining,

[characterized in that] wherein the equipment support comprises at least one [region in the form of a] double-shell box structure, resistant to warping, with two continuous walls which are spaced apart and parallel to the outer wall of the door structure, and in that the outer surface of the box structure facing towards the outer door wall [(3)] is parallel and close to a line [(F)] along which the window, which can be dropped down into the space between the outer wall [(3)] of the door and the said surface of the box structure moves, and in that the inner surface of the box structure facing towards the inside of the vehicle is equipped with attachment means for mounting the equipment destined for the inside of the vehicle[, such as the door handle, loudspeakers or the like].

2. (Amended) [Vehicle] The vehicle door according to Claim 1, [characterized in that] wherein the line of movement [(F)] and the surface of the box structure parallel to it are curved.

3. (Amended) [Vehicle] The vehicle door according to Claim 1, [characterized in that] wherein the equipment support is made up of two shaped parts [(8, 12)].

4. (Amended) [Vehicle] The vehicle door according to Claim 3, [characterized in that] wherein the shaped parts [(8, 12)] have rather similar dimensions and are fixed firmly together around their entire periphery.

5. (Amended) [Vehicle] The vehicle door according to Claim 3, [characterized in that] wherein one of the two shaped parts [(12)] has smaller dimensions than the other shaped part [(8)].

6. (Amended) [Vehicle] The vehicle door according to Claim 1, [characterized in that] wherein the equipment support is made as a single piece and in that the region in the form of a box structure has openings or recesses for installing equipment.

7. (Amended) [Vehicle] The vehicle door according to Claim 6, [characterized in that] wherein the openings or recesses are provided only on that side of the box structure-shaped region that faces towards the inside of the vehicle.

8. (Amended) [Vehicle] The vehicle door according to Claim 1, [characterized in that] wherein a body of foam [(20)] is placed in a hollow [(22)] of the equipment support in order to afford side impact protection.

Claim 9 (Deleted).

Claims 10-19 (New).--

IN THE ABSTRACT

On page 11, please amend the Abstract of the Disclosure as follows:

ABSTRACT OF THE DISCLOSURE

[The invention relates to] A vehicle door, [comprising] including a door structure, an equipment support structure associated with pre-mounted equipment[,] which can be fixed to [said] the structure, and an interior trim lining. [According to the invention, t]The equipment

support [comprises] includes at least one region in the form of a double-shell box structure, the outer surface of which is parallel and close to the line [(F)] along which the window glass moves and the inner surface of which is equipped with attachment means for mounting equipment [destined for the] inside [of] the vehicle door.

[Figure 1]